

APPENDIX A

An Introduction to the Patent System

A Federal Judicial Center Production

As you probably know by now, this is a patent case. So you may be wondering: how can I sit in judgment on a case like this when I'm not entirely sure what a patent is? We hope to answer that concern with this brief video, which will give you some of the background needed to do your job.

This case will involve some special issues that the judge and lawyers will explain to you, but all patent cases involve some basics that you will learn about. This video will discuss: what patents are; why we have them; how people get them; and why there are disputes that require us to call in a jury like you. We will also show you what patents look like.

The United States Constitution gives Congress the power to pass laws relating to patents. It allows Congress to promote the progress of science and useful arts by securing, for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries. A patent, then, is an official grant by the United States government that gives its owner certain rights to an invention. Those include the right to keep others from making, using, selling, or offering for sale the invention that is described in the patent. A patent lasts for a specific period of time, usually 20 years, and represents a bargain made between the government and the inventor. In return for the right to keep others from using the invention, the inventor must enhance the public knowledge, or what we sometimes call the "state of the art," by adding something new and useful to it. An example is Thomas Edison's invention of the light bulb. During the lifetime of the patent, its disclosure may inspire new inventions, and, after it expires, the invention is free for anyone to use. It is this giving of something new and valuable to the public which justifies giving a patent to the inventor. A patent is in many ways like a deed to a piece of property. It grants the owner the right to keep people off the property or to charge them a fee, like rent, for using it, and, just as a deed indicates limitations on the rights of a landowner, a patent sets limits on the rights of an inventor.

The patent system works because the inventor is required to describe the invention in clear and specific terms so that public knows what the boundaries of the invention are. Once the patent is issued by the government, it becomes available for public inspection. In that way, anyone who learns of the patent, and is interested, can read it and understand exactly what the inventor has claimed to have invented.

Now that we understand what a patent is, let's take a closer look at the term "invention." An invention is a new way of solving a problem. The patent process begins in the mind of the inventor and, in particular, when the invention is formulated in the mind of the inventor. Patent lawyers call this "conception." This is when the idea occurs to the inventor clearly enough that he or she can write it down and explain it to someone. To qualify for a patent, the invention needs to be new and useful. Also, it must not be obvious to one of ordinary skill in the field. If the inventor believes these requirements are met, he or she will prepare an application for filing with the United States Patent and Trademark Office in Washington, D.C.

The Patent and Trademark Office, often called the PTO, is the agency of the federal government whose job it is to examine patent applications to make sure that they are in proper form and comply with the requirements of the law. The inventor can prepare the application for filing with the PTO, but usually it is drafted by an attorney who specializes in this work or by a patent agent, who is not an attorney. The attorney or agent works with the inventor to be sure that the invention is described and claimed in a way that complies with the law and the regulations of the PTO.

As you can see, the application is basically a type-written document in which the inventor describes the invention he or she is trying to protect. When the PTO receives the inventor's application, it assigns a patent examiner, a staff person with a background in the field or art the invention falls within, to examine the application and decide whether a patent can be granted.

You've been given a sample patent to refer to as you watch this video. So you already have a sense of what a patent looks like. But now let us take a closer look at the three main parts to a patent.

To begin with, there is some basic identifying information on the first page. This material is highlighted in your handout. On the upper right side of the page is the number assigned to the patent by the government, and, on the left side, is a title that describes the invention, the names of the inventors and sometimes the company they have assigned the patent to, and the date when the patent application was filed. There is also more detailed information on the first page, including a list of numbers following the caption "field of search." These numbers identify previously issued patents the examiner looked at or searched to make sure the applicant's claimed invention really is something new, not obvious, and thus patentable. Also listed on the first page are what we call "references," that is previous patents or articles that describe the technology or prior art known at the time the application was filed. It may seem strange to you that we call this preexisting technology "prior art," even though it has nothing to do with artists. We use the word "art" in its broadest sense, to include inventions and other subject matter reasonably related to the claimed invention. We also refer to the latest technology as "state of the art," and we say of someone who can understand and apply the technology that he or she is "skilled in the art."

The second major part of the patent is what we call the specification or written description. As is the case in your sample, it is usually the longest part of the patent. It includes an abstract, which is a brief summary of the invention; a background section that describes the nature of the problem the invention is supposed to solve; one or more drawings, called "figures," that illustrate various aspects of the invention; and a detailed description of one or more embodiments of the invention. An "embodiment" is a specific device or method that uses the invention, such as a particular form of light bulb.

The third and most important part of the patent is the claims. These are the numbered paragraphs that appear at the end. The claims are what give the public notice of the boundaries of the invention. They are similar to the description of property you may have seen in a deed, referring to precise measurements taken on the ground.

Now that we have discussed the main parts of a patent, let us take a look at how the PTO processes patent applications. This process, which is called prosecution of a patent application, begins when the inventor's application arrives at the PTO mailroom. There it receives a stamp that establishes its filing date. Every year the PTO receives over 300,000 applications, and issues more than 150,000 patents.

Applications go from the mailroom to the Office of Initial Patent Examination, which looks them over to make sure all the required parts are there. This office also decides what field of technology an application relates to and assigns it to the appropriate examining group. Soon it is assigned to an individual patent examiner for handling. It then gets put in a stack to await its turn for examination. The reason is that examiners have to review the applications assigned to them in the order in which they have been filed.

In time, the examiner turns to our inventor's application and begins by reading it, especially the specification and claims, in order to come to a conclusion about whether the inventions described in the claims are patentable. A patent might contain one claim or many claims and the examiner must make this conclusion about each individual claim. In order to make that decision, the patent examiner usually looks at patents that have been issued previously in the same or very closely related fields of art. In most areas of technology, the examiner also has computer databases that contain limited additional information.

Another part of the job is to decide if the inventor's description of the invention is complete and clear enough to meet the requirements for a patent, including the requirement that the description enable someone of ordinary skill in the field to actually make and use it. It is important to note that the process of patent examination is private. That is, the public does not know that someone has applied for a patent on an invention until the patent issues or, in some cases, until the application has been pending for at least 18 months. The reason for this secrecy is to give the inventor a chance to get the examiner's reaction to the application and decide whether to withdraw it for whatever reason and keep the invention as confidential information. However, because the process occurs mostly in private, and because the job of examining so many applications is very challenging, the law requires the applicant to tell the examiner whatever he or she knows about the prior art that might be important to the examiner's decision on whether to allow the patent. We call this the applicant's "duty of candor." One way the applicant can satisfy this duty is by bringing certain prior art to the attention of the examiner, either in the original application or in other submissions called "Information Disclosure Statements." In this way, the decisions of the examiner are based on both the information provided by the applicant and on the information the examiner is able to find during the examination process.

Sometimes the examiner concludes the application meets all the requirements we have discussed and allows the patent to issue at this first stage. More frequently, the examiner will reject the application as deficient in some respect. At this point, the applicant usually prepares a written response, either agreeing or disagreeing with the examiner. An applicant who agrees with the examiner can submit amendments to the application designed to overcome the examiner's objection and an applicant who disagrees with the examiner can explain the reasons

for the disagreement. This exchange of Office Actions and Responses goes on until the examiner issues a Final Office Action, which may reject or allow some or all of the applicant's claims.

Once a final PTO Office Action has occurred, and one or more claims have been allowed, the applicant is required to pay an issuance fee and the patent is granted. Then, on the date shown in the upper right corner of the first page of the patent, it is issued by the PTO and the inventor receives all the rights of a patent. That date is highlighted on your sample.

By the time a patent issues and the public can take a look at it, the record of the what the examiner did is also made public. This is the patent's file, which we call the prosecution history. The file history contains the original application and all the communications between the applicant and the patent examiner, including the record of any rejections, the applicant's responses, and any amendments.

Once the patent is issued, the inventor or the person or company the inventor has assigned the patent to can enforce the patent against anyone who uses the invention without permission. We call such unlawful use "infringement." But the PTO and its examiner do not decide infringement issues. If there is a dispute about infringement, it is brought to the court to decide.

Sometimes, in a court case, you are also asked to decide about validity, that is, whether the patent should have been allowed at all by the PTO. A party accused of infringement is entitled to challenge whether the asserted patent claims are sufficiently new or non-obvious in light of the prior art or whether other requirements of patentability have been met. In other words, a defense to an infringement lawsuit is that the patent in question is invalid.

You may wonder why it is that you would be asked to consider such things when the patent has already been reviewed by a government examiner. There are several reasons for this. First, there may be facts or arguments that the examiner did not consider, such as prior art that was not located by the PTO or provided by the applicant. Another reason may be the failure by the applicant to disclose the best way of making or using the invention, which is another requirement for getting a patent. In addition, there is of course the possibility that mistakes were made or important information overlooked. Examiners have a lot of work to do and no process is perfect. Also, unlike a court proceeding, prosecution of a patent application takes place in private without input from people who might later be accused of infringement.

So it is important that we provide a chance for someone who is accused of infringement to challenge the patent in court. In deciding issues of infringement and validity, it is your job to decide the facts of the case. The judge will instruct you about the law, which may include the meaning of certain words or phrases contained in the patent. But it is up to you, as exclusive judges of the facts, to apply the facts as you find them to the law, and decide the questions of infringement and validity in the case before you.

To prove infringement, the patent holder must persuade you that it is more likely than not that the patent has been infringed. To prove that a patent is invalid, the law requires a

higher standard of proof, since the PTO is presumed to have done its job correctly. The party accused of infringement must persuade you that it is highly probable that the patent is invalid.

Good luck with your task and thank you for your service.